

crop science and crop management

problems caused by global climate change and other related changes

effects on crop physiology and crop yield

biotic stress

abiotic stress

biological approaches

technical approaches

integrated approaches

including social dimension

- **biotic stress: biological approach**

improve disease resistance against emerging pathogens and pests in major crop plants relevant for both Europe and India (e.g. wheat, potato) using techniques emerging from the combination of modern molecular technologies with classical breeding technologies (e.g. QTL cloning)

- **abiotic stress: biological approach**

address drought (and salinity) stress by improving drought tolerance and water use efficiency in major crop plants relevant for both Europe and India (e.g. potato, wheat)

- **abiotic stress: technological and sociological approach**

avoid the non-sustainable use of fossil water by improving water productivity through the development and implementation of integrated water management systems (harvest, storage, distribution), including a practical response strategy

- **improvement of cropping systems**